2015 NATOPS Manual Change Summary

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Purpose

- To provide changes on major changes to the TH-57B/C NATOPS Manual.
- This training is not all inclusive and only consists of the major changes.
- Revision should be read cover to cover.
- Changes incorporate new reality for this aircraft; i.e. slow to spool and hot starts
- Changes also more closely align with Bell procedures and manuals

Terminology and Layout

- Terminology
  - Land as soon as Practicable
  - FCS
  - SMA
  - SEBD
  - Multiple changes to grammar and wording
  - Stylistic changes to multiple Notes, Warnings and Cautions
- Layout
  - Preface and Chapter One have been standardized by NAVAIR
    - Changes to Preface will not be entertained
  - Reverse Video B/C for series is a software update

Chapter Two

- Major overhaul of MINISTAB system description
  - Thank Shifty
- Associated new MINSTAB terminology
- RADALT referred to as the KRA-405(series)
- Old reference to seats with “adjustable lumbar” removed

Chapter Three

- New primary/alternate fluids for Hydraulic System, Rotor Brake and Main Rotor Hub Grips

- New protocol for servicing Engine Oil
  - Requirement to dry motor for 30 seconds before checking oil level to service
  - Reference to the “inside edge of the cap adapter” aka Weld Line for servicing only.
  - Do use the dipstick to check the fluid level.

Chapter Four

- Intentional operation in the transient range of any limit is prohibited.
- Minimum fuel reserve requirement is 10 gallons
- Steady State Nf defined
- Ng at idle now 63+/- 1%
- Gauge images now only contain the gauge markings (no limits)
- Power off Nr transient range eliminated
- Crew requirement added for CAL/Externals
- Prohibited Maneuvers changed:
  - “Intentional entry into Vortex Ring State” changed to “Fully developed Vortex Ring State”
  - 60 degrees angle of bank removed
    - Aerobatic maneuvers still prohibited. AOB greater than 60 are considered aerobatic

Chapter Six

- All NATOPS brief items consolidated into Chapter Six
- Dynamic Rollover added as a NATOPS brief item
- Special Instructions for Shipboard Ops and NVDs are spelled out in the NATOPS manual, but are only a bullet in the PCL.

Chapter Seven

- Tail Rotor Oil-Check for visible oil level vice 1/8” above line.
- Major change to start sequence
- Deceleration and Flight Idle check required for both twist grips
- Hydraulics check no longer its own check, now at the end of the Pretakeoff checks as a daggered item.

Chapter Nine

- Major revisions to practice autorotation maneuver descriptions
- “Slow to Spool” alluded to
- 15 second wait following power off maneuvers no longer required
  - Stability language still exists (Nf/Nr 60-65, Ng stabilized in idle range)
  - Neutralizing pedals still required
  - Still not allowed to exceed 40% torque on the run-up
- Voice procedures for tactics added

Chapter Ten

- Come find me if you’re interested.

Chapter Eleven

- Large discussion of autorotative aerodynamics added.
  - Written by HITU IPs, meant to be readable and accessible for students
  - Please read it and have your students read it as well
- Minor changes to dynamic rollover section
- Discussion of LTE modified slightly

Chapter Twelve

- Failures may not be accompanied by every indication
- FUEL LOW/FUEL PRESS
- ENG OUT light identified as engine or tach-gen failure
- ENG CHIP delineated as “third or fourth” vice “any subsequent” chip
- TRANS CHIP maintenance criteria elaborated upon

Chapter Thirteen

- Abort Start criteria elaborated
  - Battery voltage stabilized below 17 volts
  - Engine Oil pressure remains at 0
  - Rotors not turning by 25% Ng
  - Transmission Oil Pressure not indicated by 30% Nr
  - All old criteria remain

Chapter Fourteen

- Restart-as required added to Engine Failure in Flight
- Collective-Lower standardized
- Compressor Stall procedure modified
- Engine Restart procedure modified
- Tail Rotor AUTHORITY may be lost if Nf is allowed to go below 80%.
- Shoulder Harness standardized
- Main Generator Failure and Loadmeter/Voltmeter malfunction consolidated into one procedure
- Landing criteria eliminated from Smoke/Fume Elimination
- Directional Gyro Failure guidance provided

Chapters Fifteen and Sixteen

- Major overhaul to autorotation/egress EPs
- BAD NEWS
  - No longer the fleet underwater egress procedure
- GOOD NEWS!
  - Much shorter and user friendly

Miscellaneous

- Chapter Seventeen
  - SWEEP check added and defined
- Chapter Nineteen-We have weapons now!
  - Just seeing if you’re paying attention
- Chapter Twenty-One: NATOPS Evaluations
  - Preflight no longer considered critical
  - Power Recovery Autorotation is considered critical
  - All items considered critical SHALL be performed
- PCL
  - Changes to names of tabs
  - Wind envelopes removed

What’s coming next?

- Read the manual cover to cover
  - If you have discrepancies, changes to recommend, DO IT NOW.
  - If you don’t have an AIRS account, email me and I will submit it for you.
- Expanded checklist and briefing guide to be a signed instruction.
- RWOP revision

QUESTIONS??